IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of :
J. Burquist *et al.* : Group Art Unit 2624
Serial No. 09/828,341 : Examiner: Pham, Thierry L.
Filing Date: 04/05/2001 : Date: April 27, 2005
For: SYSTEM AND METHOD FOR :
AUTOMATIC DOCUMENT... :

AFFIDAVIT UNDER 37 C.F.R. 1.131

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

We, Joseph Burquist and Darius Boockholdt, hereby declare that we are the inventors of the SYSTEM AND METHOD FOR AUTOMATIC DOCUMENT VERIFICATION disclosed and claimed in the above-identified patent application.

Enclosed herewith is a copy of an invention disclosure, which shows that the invention was conceived by us on or before November 6, 2000. We worked diligently on the invention from conception until the application was filed April 5, 2001.

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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Descriptive Title of Invention:
Verification of Print output and /or quality using on-board scanning capability of MFP device. or other printing device.

Name of Project: NONE

Product Name or Number: NONE

Was a description of the invention published, or are you planning to publish? If so, the date(s) and publication(s):
NO

Was a product including the invention announced, offered for sale, sold, or is such activity proposed? If so, the date(s) and location(s):
NO

Was the invention disclosed to anyone outside of HP, or will such disclosure occur? If so, the date(s) and name(s):
NO

If any of the above situations will occur within 3 months, call your IP attorney or the Legal Department now at 1-898-4919 or 970-898-4919.

Was the invention described in a lab book or other record? If so, please identify (lab book #, etc.)
No

Was the invention built or tested? If so, the date:
No

Was this invention made under a government contract? If so, the agency and contract number:
No.

Description of Invention: *Please preserve all records of the invention and attach additional pages for the following. Each additional page should be signed and dated by the inventor(s) and witness(es).*

A.   Prior solutions and their disadvantages (if available, attach copies of product literature, technical articles, patents, etc.).   See Attached.
B.   Problems solved by the invention.
C.   Advantages of the invention over what has been done before.
D.   Description of the construction and operation of the invention (include appropriate schematic, block, & timing diagrams; drawings; samples; graphs; flowcharts; computer listings; test results; etc.)

Signature of Inventor(s): Pursuant to my (our) employment agreement, I (we) submit this disclosure on this date: [   ].

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(If more than four inventors, include additional information on another copy of this form and attach to this document)

Signature of Witness(es): *(Please try to obtain the signature of the person(s) to whom invention was first disclosed.)*
The invention was first explained to, and understood by, me (us) on this date: [   ]

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Patent Disclosure 052400
Topic- Verification of Print output and/or quality using on-board scan capability of a printing device

Background- In the past, if you wanted to purchase stamps, a book, tickets to an event (any sort of hardcopy output that has an intrinsic value) you would have to travel to a store and purchase the item. Today a person can order these items over the internet and the vendor will then ship the item to your address. In the future, people will want to be able to print these valuable documents in their home/office to simplify the purchase interaction. Vendors will wish to enable this selling motion and lower the effort required to sell/purchase their products. Vendors will require a way of making sure that the purchaser cannot print multiple copies of the product. Customers will require a way of making sure that the printer has successfully printed the purchased item so that it will serve it's intended purpose. For example, a faded print out of a purchased map will not meet the customers requirement, but they may be prevented from printing a second copy. The same would hold for a copy of a new novel, or tickets to the opera.

Invention- HP could use the on-board scanner function of multi-function devices (MFP's) to verify that the printer actually printed the desired document with a level of print quality such that the output will serve its intended purpose. This idea could also be implemented by adding an inexpensive scanning device (internally or externally) to a standard printer.

Applications
1. Materials that are purchased over the internet or remotely in any other way could be sent with a special "print once and discard/disable" command attached to the file. Printer output would be routed through the on-board scanner and the scanned image would be compared to the description of the purchased file. If the two correlate within an acceptable window of error, the purchased file is then deleted to prevent multiple prints. If the two do not correlate the printer will assume an error of some sort, alert the printer user and allow for a reprint of the document. Once the document is ultimately printed successfully, the purchased file would be automatically deleted.
2. Use of the scanner for print verification could also be use to assure receipt and printing of incoming faxes. Currently, printer manufacturers store numerous jobs in memory to protect against the possibility of poor printing. This way, the user can recall a job if the print output is unacceptable. Use of the scanner for this purpose would greatly reduce the amount of memory that would be needed on the printer and therefore reduce the cost of the printer as well.
3. This idea could also have application in the area of Secure Printing. The printer could use the on-board scanner to check the output before delivering the document to a secure output bin/mailbox. If the print was determined to have failed, the printer would send a warning to the user and then destroy the output.

Refinements to the Invention
1. To simplify the process of verification for long jobs, the printer could verify output only on first and last page. This would limit the number of pages that have to be scanned and processed.
2. The scanning comparison could simply count up total pixels on a page and determine if the output total is within a certain tolerance band of the original file. The comparison could be more exact and focus in on certain areas of the output to make sure that patterns in the output conform to those in the input file. In the extreme, this approach could be used as a print quality sensor.